

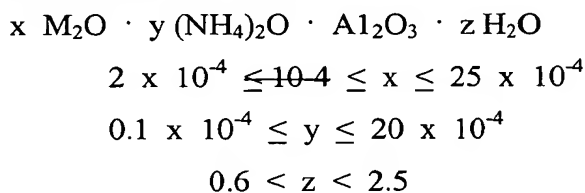
### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims**

1-7. (Cancelled)

8. (Currently amended): Alumina hydrate particles having a composition represented by the general formula:



wherein M represents an alkali metal; when the alkali metal is in the form of  $\text{M}_2\text{O}$ , x is the number of moles thereof per mole of  $\text{Al}_2\text{O}_3$ ; when ammonia is in the form of  $(\text{NH}_4)_2\text{O}$ , y is the number of moles thereof per mole of  $\text{Al}_2\text{O}_3$ ; and z is the number of moles of hydration water ( $\text{H}_2\text{O}$ ) per mole of  $\text{Al}_2\text{O}_3$ ,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2  $\mu\text{m}$ ,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

9. (Previously presented): A process for producing alumina hydrate particles, comprising the steps of:

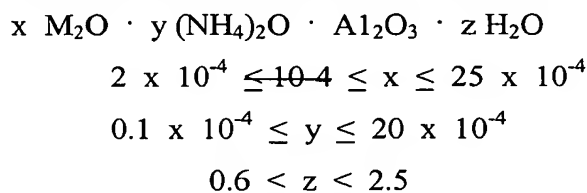
neutralizing an aqueous solution of alkali metal aluminate or an aqueous solution of aluminum salt to thereby form an alumina hydrogel;

separating the alumina hydrogel by filtration, and washing the separated alumina hydrogel with water and/or aqueous ammonia;

adjusting the pH value for the washed alumina hydrogel so as to fall within the range of 9 to 12, and heating the alumina hydrogel at 50 to 105°C to thereby effect aging of the alumina hydrogel;

adding an acid to the alumina hydrogel so that the alumina hydrogel is deflocculated into an alumina hydrosol; and  
drying the alumina hydrosol.

10. (Currently amended): An alumina hydrate particle dispersion sol comprising a dispersion of alumina hydrate particles in water, wherein said alumina hydrate particles have a composition represented by the general formula:



wherein M represents an alkali metal; when the alkali metal is in the form of  $\text{M}_2\text{O}$ , x is the number of moles thereof per mole of  $\text{Al}_2\text{O}_3$ ; when ammonia is in the form of  $(\text{NH}_4)_2\text{O}$ , y is the number of moles thereof per mole of  $\text{Al}_2\text{O}_3$ ; and z is the number of moles of hydration water ( $\text{H}_2\text{O}$ ) per mole of  $\text{Al}_2\text{O}_3$ ,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2  $\mu\text{m}$ ,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

11. (Currently amended): The alumina hydrate particle dispersion sol as claimed in claim 9 10 having an absorbance (ABS) of 2.0 or less exhibited when the  $\text{Al}_2\text{O}_3$  has a concentration of 20% by weight.

12. (Currently amended): The alumina hydrate particle dispersion sol as claimed in claim 9 10 having a viscosity of 50 to 2000 cP exhibited when the  $\text{Al}_2\text{O}_3$  has a concentration of 20% by weight.

13. (Currently amended): The alumina hydrate particle dispersion sol as claimed in claim ~~11~~ 12 having an absorbance (ABS) of 2.0 or less exhibited when the  $\text{Al}_2\text{O}_3$  has a concentration of 20% by weight.

14. (Currently amended): A coating liquid for forming an ink receptive layer, comprising:

alumina hydrate particles and a binder, wherein said particles and binder are dispersed in one of water or an organic solvent,

wherein the alumina hydrate particles have a composition represented by the general formula:

$$\begin{aligned} & x \text{ M}_2\text{O} \cdot y (\text{NH}_4)_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot z \text{H}_2\text{O} \\ & 2 \times 10^{-4} \leq \cancel{10^{-4}} \leq x \leq 25 \times 10^{-4} \\ & 0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4} \\ & 0.6 \leq z \leq 2.5 \end{aligned}$$

wherein M represents an alkali metal; when the alkali metal is in the form of  $\text{M}_2\text{O}$ , x is the number of moles thereof per mole of  $\text{Al}_2\text{O}_3$ ; when ammonia is in the form of  $(\text{NH}_4)_2\text{O}$ , y is the number of moles thereof per mole of  $\text{Al}_2\text{O}_3$ ; and z is the number of moles of hydration water ( $\text{H}_2\text{O}$ ) per mole of  $\text{Al}_2\text{O}_3$ ,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2  $\mu\text{m}$ ,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

15. (Currently amended): A recording sheet with ink receptive layer, comprising a substrate sheet having an ink receptive layer formed thereon from a coating liquid comprising:

alumina hydrate particles and a binder, wherein said particles and binder are dispersed in one of water or an organic solvent,

wherein the alumina hydrate particles have a composition represented by the general formula:

$$\begin{aligned} & x \text{ M}_2\text{O} \cdot y (\text{NH}_4)_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot z \text{H}_2\text{O} \\ & 2 \times 10^{-4} \leq \cancel{10^{-4}} \leq x \leq 25 \times 10^{-4} \\ & 0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4} \\ & 0.6 \leq z \leq 2.5 \end{aligned}$$

wherein M represents an alkali metal; when the alkali metal is in the form of  $M_2O$ , x is the number of moles thereof per mole of  $Al_2O_3$ ; when ammonia is in the form of  $(NH_4)_2O$ , y is the number of moles thereof per mole of  $Al_2O_3$ ; and z is the number of moles of hydration water ( $H_2O$ ) per mole of  $Al_2O_3$ ,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2  $\mu m$ ,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.